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Level: Second Year

Course Five: Transformational Generative Grammar

1-Chomsky's reaction to Behaviourism

Behaviorism is committed in its fullest and most complete sense to the truth of the following

three sets of claims.

1. Psychology is the science of behavior. Psychology is not the science of the inner mind –

as something other or different from behavior.

2. Behavior can be described and explained without making ultimate reference to mental

events or to internal psychological processes. The sources of behavior are external (in the

environment), not internal (in the mind, in the head).

3. In the course of theory development in psychology, if, somehow, mental terms or

concepts are deployed in describing or explaining behavior, then either (a) these terms or

concepts should be eliminated and replaced by behavioral terms or (b) they can and

should be translated or paraphrased into behavioral concepts.

The most influential behaviourist figure was B.F Skinner (1904–90), Skinner's view is

based on using experimental methods to study verbal behavior through observing

responses in speakers given specific stimuli and associated reinforcements.

Skinner's book, 'Verbal Behavior' (1957) dealt with most aspects of verbal behavior, and was

subject to extensive criticism. Noam Chomsky's (1959)review of the book was extremely

critical; he suggested that the book demonstrated the failure of Behaviorism. The review was

very influential, and many psychologists accepted its conclusions. The effect was an

abandonment of behaviorist principles and the ready acceptance of mentalist (or cognitivist)

approaches among most of the intellectual community.

According to Skinner (1957), children learn to say words such as red, chair pyramid, and familiar with the help of appropriate reinforcing contingencies. The contingencies establish the control of the responses by certain stimuli.

In Chomsky's review of Skinner's book on verbal behavior, Chomsky charged that behaviorist models of language learning cannot explain various facts about language acquisition, such as;

1-The rapid acquisition of language by young children, which is sometimes referred to as the phenomenon of "lexical explosion." A child's linguistic abilities appear to be radically underdetermined by the evidence of verbal behavior offered to the child in the short period in which he or she expresses those abilities. By the age of four or five (normal) children have an almost limitless capacity to understand and produce sentences which they have never heard before.

- 2-Chomsky also argued that it seems plainly untrue that language learning depends on the application of detailed reinforcement. A child does not, as an English speaker in the presence of a house, utter "house" repeatedly in the presence of reinforcing elders. Language as such seems to be learned without, in a sense, being explicitly taught or taught in detail, and behaviorism doesn't offer an account of how this could be so.
- 3 -When put to the test of uttering a grammatical sentence, a person, for Chomsky, has a virtually infinite number of possible responses available, and the only way in which to understand this virtually infinite generative capacity is to suppose that a person possesses a powerful and abstract innate grammar.

In addition, since many of Skinner's investigations were conducted on animals, Chomsky denied the generalization of their findings on human beings